Application No. 10/054,451 Amendment dated July 6, 2004 Reply to Final Office Action of May 5, 2004 Amendments To the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

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Claim 1 (currently amended): A digital equipment system comprising:

a. a host for sending commands to read or write files having sectors of information, each sector having and being modifyable on a bit-by-bit, byte-by-byte or word-by-word basis,

said host being operative to receive responses to said commands;

b. a controller device responsive to said commands, and including,

one-time-programmable nonvolatile memory for storing information organized into

sectors, based on commands received from the host; and

a comparator coupled to receive sectors to be written and re-written, wherein upon

receiving commands from the host to re-write a sector, the [controller device] comparator

comparing a sector to be re-written to a corresponding stored sector allowing the controller

device to [for re-writing] re-write said sector to be re-written only on a bit-by-bit, byte-by-

byte or word-for-word basis and only as to those locations in the sector that have been

modified.

1 Claim 2 (original): A digital equipment system as recited in claim 1 wherein said one-time-

programmable nonvolatile memory includes a system area and a data area, said system area for

storing information pertaining to the organization of the information stored or to be stored in the

4 data area.

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1 Claim 3 (currently amended): A digital equipment system as recited in claim 2 wherein said

2 [sytem] system area includes storage areas for including Original Engineering Manufacturer

Application No. 10 /054,451 Amendment dated July 6, 2004 Reply to Final Office Action of May 5, 2004

- 3 (OEM) identification/Bidirectional Input/Output System (BIOS), a File Allocation Table (FAT)
- 4 1, a FAT 2 and root disk directory information.

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- 1 Claim 4 (original): A digital equipment system as recited in claim 1 wherein said controller
- 2 device further includes a first buffer for storing a host-provided sector and a second buffer for
- 3 storing sectors stored or to be stored in the one-time-programmable nonvolatile memory.

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- 1 Claim 5 (original): A digital equipment system as recited in claim 4 further including a
- 2 comparator coupled between said first and second buffer for comparing a sector to be modified
- 3 or accessed by the host with those sectors to which information has been previously written.

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- 1 Claim 6 (original): A digital equipment system as recited in claim 1 wherein during power-up,
- 2 said controller device for identifying the end-of-file, wherein the location following the location
- 3 in which the end-of-file resides is identified as the location for the start-of-file of a new file to be
- 4 stored.
- 1 Claim 7 (original): A digital equipment system as recited in claim 6 wherein said end-of-file is
- 2 identified by the use of a flag.
- 1 Claim 8 (original): A digital equipment system as recited in claim 1 wherein said files are
- 2 digital photographs.
- 1 Claim 9 (original): A digital equipment system as recited in claim 1 wherein said files are
- 2 archives.

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Application No. 10/054,451 Amendment dated July 6, 2004 Reply to Final Office Action of May 5, 2004

- 1 Claim 10 (original): A digital equipment system as recited in claim 1 wherein said controller
- 2 device maintains a correlation between logical addresses and physical addresses for translating
- 3 host-provided addresses to addresses recognized by the one-time-programmable nonvolatile
- 4 memory.

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- 1 Claim 11 (original): A digital equipment system as recited in claim 10 wherein said controller
- 2 for maintaining track of defective locations within the one-time-programmable nonvolatile
- 3 memory.
- 1 Claim 12 (currently amended): A digital equipment system comprising:
- a. a host for sending commands to read or write files having sectors of information, said host
- 3 being operative to receive responses to said commands;
- 4 b. a controller device responsive to said commands, and including,
- 5 one-time-programmable nonvolatile memory having a spare area, said one-time-
- 6 programmable nonvolatile memory for storing information organized into sectors, based on
- 7 commands received from the host, and upon receiving commands from the host to re-write a
- 8 sector, said controller for mapping sectors being re-written to the spare area.
- 1 Claim 13 (original): A digital equipment system as recited in claim 12 wherein said one-time-
- 2 programmable nonvolatile memory further includes a system area and a data area.

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- 1 Claim 14 (original): A digital equipment system as recited in claim 13 wherein said controller
- 2 device for identifying a start-of-file location and an end-of-file location and a defective sector
- 3 location within the one-time-programmable nonvolatile memory, the latter of which is skipped
- 4 over when writing sectors.

Application No. 10/054,451 Amendment dated July 6, 2004

Reply to Final Office Action of May 5, 2004

- 1 Claim 15 (original): A digital equipment system as recited in claim 14 wherein the information
- 2 that was to be written to the defective sector is instead written to the spare area location.

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- 1 Claim 16 (original): A digital equipment system as recited in claim 12 wherein said controller
- 2 for determining if there is no start-of-file identifier at a location following a corrupted sector or
- 3 there is no end-of-file in the rest of the one-time-programmable nonvolatile memory, such
- 4 location identified as a corrupted sector due to power failure and designated accordingly so as to
- 5 prevent future storage of information therein.
- 1 Claim 17 (original): A digital equipment system comprising:
- a. a host for sending commands to read or write files, said host being operative to receive
- 3 responses to said commands;
- 4 b. a controller device responsive to said commands, and including,
- 5 one-time-programmable nonvolatile memory for storing files and identifying the
- 6 start-of-file and end-of-file for a file being stored within the one-time-programmable
- 7 memory, wherein during power-up, said controller device for identifying the end-of-file of a
- 8 stored file, the location following the location in which the end-of-file resides being
- 9 identified as the location for the start-of-file of a new file to be stored.
- 1 Claim 18 (currently amended): A digital equipment system comprising:
- a. a host for sending commands to read or write files having sectors of information, said
- 3 host being operative to receive responses to said commands;
- b. a controller device responsive to said commands, and including,
- 5 one-time-programmable nonvolatile memory having spare locations for storing
- 6 sector information, said one-time-programmable nonvolatile memory for storing information
- organized into sectors based on commands received from the host and upon receiving a

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Application No. 10 /054,451 Amendment dated July 6, 2004

Reply to Final Office Action of May 5, 2004

- 8 command from the host to re-write or update a sector, the controller device for writing only
- 9 the updated sector to a spare location.
- 1 Claim 19 (original): A digital equipment system comprising:
- a. a host for sending commands to read or write files having sectors of information, each
- 3 sector having associated therewith an error correction code (ECC) indicative of the
- 4 corruption of sector information, said host being operative to receive responses to said
- 5 commands;

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- b. a controller device responsive to said commands, and including,
- 7 one-time-programmable nonvolatile memory for storing information organized into
- 8 sectors, wherein said controller checks the ECC of a particular sector for a determination of
- 9 whether or not the particular sector is corrupted and if so, reads the information stored within
- the next sector and determines if the next sector information is in a non-programmable state
- and if so or the ECC associated with the next sector indicates that the next sector information
- is corrupt, the controller device identifies an end-of-file.